

WE CLAIM:

Step A
1. An apparatus for providing a gateway between one or more wired telephones and a wireless telephone network, comprising:

a wireless radio operative to communicate with said wireless telephone network over a wireless communications link;

a wired telephone interface electrically coupled to said one or more wired telephones; and

a controller, said controller operative to:

detect an incoming telephone call at said wireless radio,

provide a ring signal through said wired telephone interface operative to ring said one or more wired telephones in response to detecting said incoming telephone call, and

in response to determining that a one of said one or more wired telephones has been placed in an off hook state, to establish a communications channel between said wired telephone interface and said wireless radio, thereby permitting said incoming telephone call to be received on said one of said wired telephones placed in an off hook state.

2. The apparatus of Claim 1, wherein said controller is further operative to:

determine whether one of said one or more wired telephones has been placed in an off hook state;

collect one or more dialed digits from said one of said one or more wired telephones placed in an off hook state;

instruct said wireless radio to establish an outgoing telephone call over said wireless telephone network utilizing said dialed digits; and

to establish a communications channel between said wired telephone interface and said wireless radio, thereby permitting said outgoing telephone call to be placed on said one of said wired telephones placed in an off hook state.

3. The apparatus of Claim 2, wherein said wired telephone interface further comprises a current source for delivering an electrical current to said one or more wired telephones compatible with POTS service.

4. The apparatus of Claim 3, wherein said wired telephone interface is further operative to deliver a dial tone signal to said one or more wired telephones in response to determining that a one of said one or more wired telephones has been placed in an off hook state.

5. The apparatus of Claim 4, further comprising a wired network interface electrically coupled to a wired telephone network, and wherein said controller is further operative to:

determine whether said wireless communications link exists between said wireless radio and said wireless telephone network, and

in response to determining that said wireless communications link does not exist, to electrically connect said wired telephone interface and said wired network interface, thereby electrically connecting said one or more wired telephones to said wired telephone network so that telephone calls placed on said one or more wired telephones will be placed over said wired telephone network.

6. A method for providing a gateway between a wired telephone and a wireless telephone network, comprising:

detecting an incoming wireless telephone call over said wireless telephone network;

providing a ring signal to said wired telephone in response to detecting said incoming call;

determining whether said wired telephone has been placed in an off hook state in response to said ring signal; and

in response to determining that said wired telephone has been placed in an off hook state, converting said incoming wireless telephone call to a format compatible

with said wired telephone and converting signals received at said wired telephone to a format compatible with said wireless telephone network, thereby permitting said incoming telephone call to be received and conducted on said wired telephone.

7. The method of Claim 6, further comprising:

delivering an electrical current to said wired telephone compatible with POTS service;

determining if said wired telephone has been placed in an off hook state;

in response to determining that said wired telephone has been placed in an off hook state, receiving one or more dialed digits from said wired telephone;

placing an outgoing wireless telephone call over said wireless telephone network using said dialed digits; and

converting signals associated with said outgoing wireless telephone call to a format compatible with said wired telephone and converting signals received at said wired telephone to a format compatible with said wireless telephone network, thereby permitting said outgoing telephone call to be placed and conducted on said wired telephone.

8. The method of Claim 7, further comprising:

providing a dial tone signal to said wired telephone in response to determining that said wired telephone has been placed in an off hook state.

9. The method of Claim 8, further comprising:

determining whether a valid communications link exists over said wireless telephone network; and

in response to determining that a valid communications link does not exist over said wireless telephone network, electrically connecting said wired telephone to a wired telephone network.

10. The method of Claim 9, further comprising:

determining whether a valid communications link has been reestablished over said wireless telephone network; and

in response to determining that a valid communications link has been reestablished over said wireless telephone network, electrically disconnecting said wired telephone from said wired telephone network.

11. An apparatus for providing a gateway between one or more wired telephones and a wireless telephone network, comprising:

a wireless radio operative to communicate with said wireless telephone network over a wireless communications link;

a wired telephone interface electrically coupled to said one or more wired telephones;

a wired network interface electrically coupled to a wired telephone network;

a current source; and

a controller operative to determine whether a connection between said one or more wired telephones and said wired telephone network is operative and, in response to determining that said connection between said one or more wired telephones and said wired network is inoperative, said controller further operative to:

cause said current source to deliver an electrical current to said one or more wired telephones compatible with POTS service,

detect an incoming telephone call at said wireless radio,

provide a ring signal through said wired telephone interface operative to ring said one or more wired telephones in response to detecting said incoming telephone call and,

in response to determining that a one of said one or more wired telephones has been placed in an off hook state, said controller operative to establish a communications channel between said wired telephone interface and said wireless radio, thereby permitting said incoming telephone call to be received on said one of said wired telephones placed in an off hook state.

12. The apparatus of Claim 11, wherein in response to determining that said connection between said one or more wired telephones and said wired network is inoperative, said controller is further operative to:

determine whether one of said one or more wired telephones has been placed in an off hook state;

collect one or more dialed digits from said one of said one or more wired telephones placed in an off hook state;

instruct said wireless radio to establish an outgoing telephone call over said wireless telephone network utilizing said dialed digits; and

to establish a communications channel between said wired telephone interface and said wireless radio, thereby permitting said outgoing telephone call to be placed on said one of said wired telephones placed in an off hook state.

13. The apparatus of Claim 12, wherein said wired telephone interface is further operative to deliver a dial tone signal to said one or more wired telephones in response to determining that a one of said one or more wired telephones has been placed in an off hook state.

14. The apparatus of Claim 13, wherein said controller is further operative to:

determine whether a connection between said one or more wired telephones and said wired telephone network has been reestablished, and

in response to determining that said connection between said one or more wired telephones and said wired telephone network has been reestablished, to electrically connect said wired telephone interface and said wired network interface, thereby electrically connecting said one or more wired telephones to said wired telephone network so that telephone calls placed on said one or more wired telephones will be placed over said wired telephone network.

15. A method for providing a gateway between one or more wired telephones and a wireless telephone network, comprising:

determining whether a connection between said one or more wired telephones and a wired telephone network is operative;

in response to determining that said connection between said one or more wired telephones and said wired network is inoperative,

delivering an electrical current to said one or more wired telephones compatible with POTS service,

detecting an incoming telephone call at a wireless radio,

providing a ring signal to said one or more wired telephones in response to detecting said incoming telephone call and,

in response to determining that a one of said one or more wired telephones has been placed in an off hook state, establishing a communications channel between said one or more wired telephones and said wireless telephone network, thereby permitting said incoming telephone call to be received on said one of said wired telephones placed in an off hook state.

16. The method of Claim 15, further comprising:

in response to determining that said connection between said one or more wired telephones and said wired network is inoperative,

determining whether one of said one or more wired telephones has been placed in an off hook state;

collecting one or more dialed digits from said one of said one or more wired telephones placed in an off hook state;

establishing an outgoing telephone call over said wireless telephone network utilizing said dialed digits; and

establishing a communications channel between said one or more wired telephones placed in an off hook state and said wireless network, thereby permitting said outgoing telephone call to be placed on said one of said wired telephones placed in an off hook state.

17. The method of Claim 16, further comprising:

delivering a dial tone signal to said one or more wired telephones in response to determining that one of said one or more wired telephones has been placed in an off hook state.

18. The method of Claim 17, further comprising:

determining whether a connection between said one or more wired telephones and said wired telephone network has been reestablished, and

in response to determining that said connection between said one or more wired telephones and said wired telephone network has been reestablished, electrically connecting said one or more wired telephones to said wired telephone network so that telephone calls placed or received on said one or more wired telephones will be placed or received over said wired telephone network.

19. A computer-controlled apparatus for providing a gateway between a wired home telephone network and a wireless telephone network, said apparatus operative to:

provide a first mode of operation in which said apparatus is operative to monitor an operational status of a wired telephone network and to route a telephone call made from said wired home telephone network through said wireless telephone network in response to determining that said wired telephone network is not operational; and

provide a second mode of operation in which said apparatus is operative to monitor an operational status of said wireless telephone network and to route a telephone call made from said wired home network through said wired telephone network in response to determining that said wireless telephone network is not operational.

20. The apparatus of Claim 19, wherein either of said first or second modes may be selected as a mode of operation for said computer-controlled apparatus, and wherein said mode of operation is selected based upon a user-specified schedule.

21. The apparatus of Claim 19, wherein either of said first or second modes may be selected as a mode of operation for said computer-controlled apparatus, and wherein said mode of operation is selected based upon dialed digits collected from a wired telephone connected to said wired home telephone network.